

REMARKS

In the Office Action mailed May 12, 2004, the Examiner noted that claims 1-19, 22-26 and 34-40 were pending, that claims 20 and 27-33 have been withdrawn from consideration, allowed claims 1-10, 14-19 and 21-26, objected to claims 12 and 13 and rejected claims 11 and 34-40. Claims 11-13, 34 and 36-40 have been amended, new claim 41 has been added and, thus, in view of the forgoing claims 1-19, 22-26 and 34-41 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections and objections are traversed below.

In the Office Action the Examiner objected to claims 12 and 13 and indicated that these claims would be allowable if rewritten in independent form. These claims have been so rewritten and it is submitted that these claims have not been narrowed and have the same scope as prior to being made independent and are now allowable. Withdrawal of the objection is requested.

On page 2 of the Office Action, the Examiner rejected claims 11 and 34 under 35 U.S.C. § 102 as anticipated by Watanabe '984.

Watanabe '984 discusses a polarization maintaining fiber (PMF) 21' in figure 9 where the principle axis is parallel to the polarization plane of the linearly polarized light. However, the principle axis of the PMF is different from the principle axis of the polarization mode to be maintained by the PMF. In contrast, in the present invention of claims 11 and 34, "said polarization mode to be maintained by said polarization maintaining fiber is given by a predetermined principal axis; said first polarization plane of said signal light in said second port includes said predetermined principal axis; and "said second polarization plane of said signal light in said third port includes said predetermined principal axis". That is, the first polarization plane of the signal light in the second port includes the predetermined principle axis. Nothing in Watanabe '984 teaches or suggests this.

It is submitted that the invention of independent claims 11 and 34 distinguish over the prior art and withdrawal of the rejection is requested.

On page 3 of the Office Action, the Examiner rejected claims 35-40 under 35 U.S.C. § 102 as anticipated by Watanabe '103.

Watanabe '103 discusses first and second fiber networks adapted for wavelength division multiplexing (WDM). A converter is connected between the networks and converts the light signal using a non-linear optical effect based on the signal and a pump light. Within the network Watanabe does not teach or suggest that the optical signals be arranged at unequal

intervals. The present invention of claim 35 emphasizes that the optical signals are "arranged at unequal intervals".

Watanabe '103 also discusses performing compensation for chromatic dispersion where the number of sections of the fiber spans is only one. In contrast, the present invention of claims 36-40 divides the spans into plural sections, see "each of said first and second fiber spans is virtually divided into the same number of a plurality of sections" and "said first and second ones [sections] corresponding to each other in order as counted according to distance from said converter". Watanabe does not teach or discuss compensation for chromatic dispersion where the number of spans and sections is plural.

It is submitted that the present claimed invention of claims 35-40 patentably distinguish over Watanabe '103 and withdrawal of the rejection is requested.

New claim 41 emphasizes that the light signal having the first polarization plane is input to the first port, output by the second port, input to the first end, output from the second end, input to the third port and output by the first port through the polarized beam splitter. In Watanabe '984, the light signal having the first polarization plane is input to the first port (62A) output by the second port (62C), input to the first end, output from the second end the input to the third port (62D) is output by a fourth port (62B), different from the first port. or suggests such. It is submitted that the new claim distinguishes over the prior art.

It is also submitted that claims 1-10, 12, 13 14-19 and 21-26 continue to be allowable. It is further submitted that the claims 11 and 34-41 are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.


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If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

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